

United States Environmental Protection Agency

Washington, D.C. 2 Water Compliance		eport					
Section A: National Data System	n Coding (i.e	. PCS)					A SECTION
Transaction Code NPDES		yr/mo/day		Inspection Type	Inspec	tor	FacType
1 N 2 3 DC000		12 <u>16/09/16</u> 17 Remarks	1.8	18 <u>C</u>	19 <u>S</u>		20 2
21						. <u> </u>	66
	Self-Monito	ring Evaluation Rating	В:	1 QA		Reserved	
[MANATA : 40] [HET 및 시간(()) [HET]	70 <u>3</u>		71		73	74 75	80
Section B: Facility Data	TO AND ST						
Name and Location of Facility In	75.77			Entry Time/Dat	e		ective Date
discharging to POTW, also inclu	ide POTW na	ime and NPDES permit	t	9:30 AM		19 June 20	09
number)				16 September 2	016		
Potomac Electric Power Compar				Exit Time/Date		Permit Exp	iration
3400 Benning Road, NE Washing	gton, DC 2001	19		2:00 PM		Date	
				16 September 2	016	19 June 20	14*
Name(s) of On-Site Representat	tive(s)/Title(s)/Phone and Fax		Other Facility D			and other
Number(s)				descriptive info	rmation)		4
Fariba Mahvi, Lead Environment	tal Engineer,	PEPCO Holdings, Inc., 2	202-				
331-6641							
Mike Williams, Asset Manager, F	3377.33						
Larry J. Freeman, Site Manager,	PEPCO Energ	y Services, 703-789-37	/54				
Name, Address of Responsible (er	Contacted			
George Nelson, Vice President O	1.000 cm cm ~~ (1.000 ft) (1.000 ft) (1.000 ft) (1.000 ft)	Figure Control of the		Yes 🔲 No			
701 Ninth Street, NW, Washingt		The second secon					
Section G: Areas Evaluated Duri			eas e		2010		
Permit		onitoring Program	닏	Pretreatment		M54	<u> </u>
Records/Reports	+=	ance Schedules		Pollution Preventi	ion		
☐ Facility Site Review	∠aborat	:ory		Stormwater			•
	⊠ Operati	ions & Maintenance		Combined Sewer	Overflow	'	
	Sludge I	Handling/Disposal		Sanitary Sewer Ov	verflow		
Section D: Summary of Findings							
(Attach additional sheets of nam	ative and chi	ecklists, including Singl	e Eve	ent Violation codes	, as nece	ssary)	The state of the s
SEV Codes SEV D	Description						
A0012 Numeric effluent	A total of	8 sampling events resu	ulted	in Numeric effluen	t violatio	ns.	
violation						-	
E0017 Failure to Notify		, 2015, the facility fails	ed to	notify EPA of a nur	meric vio	lation for C	opper.
		lation was reported.		0.500 oc		The state of the s	Assessment S
Name(s) and Signature(s) of Ins	pector(s)	Agency/Office/Phon				De	ite
Robert Burnett		District Department of Water Quality Division					07.16
Isaac Kelley	Z	District Department	of the	Environment		l.	2.07.16
2000		Water Quality Divisio	n – 2	02.535.2691			2,07.0
L				en la companya di santa di sa			
Signature of Management O/A R	eviewer	Agency/Office/Phone				12	2.07.16
Joshua Rodriguez	>	Water Quality Division	on – 2	202.535.1025			
Comments		none-personal-risk at a larger to the respect to th			····		
*The facility filed for permit rene			perm	nit has not yet bee	n issuea.	The permit	is
administratively continued until	the new perr	nit is finalized.					

		PERMIT N	D. DC000009	14
SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS A	PPROPRIATE. N/A = NOT	APPLICABL		
SECTION F - FACILITY AND PERMIT BACKGROUND				
ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY (Including City, County and ZIP code)	DATE OF LAST PREVIOU May 6, 2015	S INVESTIG	ATION BY E	PA/STATE
	FINDINGS 6 effluent limit excursio FY 2015 inspection.	ns were not	ted between	FY 2014 and
SECTION G - RECORDS AND REPORTS	高层等的 经货币的 為 经验		ALC: Y	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PER	MIT	Yes	□ No	□ N/A
DETAILS:				
(a) ADEQUATE RECORDS MAINTAINED OF:		Yes	☐ No	⊠ N/A
SAMPLING DATE, TIME, EXACT LOCATION		Yes	☐ No	□ N/A
ANALYSES DATES, TIMES		Yes	☐ No	□ N/A
INDIVIDUAL PERFORMING ANALYSIS		Yes	☐ No	□ N/A
ANALYTICAL METHODS/TECHNIQUES USED		Yes	☐ No	□ N/A
ANALYTICAL RESULTS (e.g., consistent with self-monitoring	report data)	Yes	☐ No	□ N/A
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAIN OF THREE YEARS INCLUDING ALL ORIGINAL STRIP CHART RE continuous monitoring instrumentation, calibration and ma	TAINED FOR A MINIMUM CORDINGS (e.g.,	⊠ Yes	□ No	□ N/A
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECO		Yes	ΠNo	□ N/A
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS F		⊠ Yes	□No	□ N/A
UNIT	ON EACH THE MINE.			
(e) QUALITY ASSURANCE RECORDS KEPT		Yes	□ No	□ N/A
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTING COMPLIANCE STATES USING PUBLICLY OWNED TREATMENT W	STRIES (and their ORKS	Yes	∐ No	⊠ N/A
SECTION H - PERMIT VERIFICATION				· · · · · · · · · · · · · · · · · · ·
INSPECTION OBSERVATIONS VERIFY THE PERMIT			□ No	□ N/A
DETAILS:				
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE		⊠Yes	No	□ N/A
(b) FACILITY IS AS DESCRIBED IN PERMIT		Yes	⊠ No¹	□ N/A
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFO	ORM WITH THOSE SET	Yes	⊠ No	□ N/A
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE		Yes	☐ No	□ N/A
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT A	PPLICATION	Yes	⊠ No	□ N/A
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFEREN		Yes	☐ No	⊠ N/A
DISCHARGES			22.274	
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAI	NED	Yes	☐ No	⊠ N/A
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS		Yes	☐ No	□ N/A
(h) CORRECT NAME AND LOCATION OF RECEIVING WATER		Yes	☐ No	□ N/A
(i) ALL DISCHARGES ARE PERMITTED		Yes	☐ No	□ N/A
Comments 1. The facility completed demolition of power generation by from two OWSs (one which treats stormwater and one which from storm flows.	uildings and equipment in a th treats vault water collec	2015. Rema	ining discha CO) and surf	rges are ace runoff

				11	PERMIT N	O. DC00000	94
SECTION I	- OPERATION AND MAIN	TENANCE				31938	
	NT FACILITY PROPERLY OF		ITAINED		⊠ Yes	ΠNo	□ N/A
DETAILS:	TI TACIETT THOT ENER OF	CIONICO VINCE INVINC				ı,	
	BY POWER OR OTHER EQ	LIIVALENT PROVISIO	ONS PROVIDED		⊠ Yes	ΠNo	□ N/A
	JATE ALARM SYSTEM FOR				⊠ Yes	No	□ N/A
	TS ON ALTERNATE SOURCE				⊠ Yes	No	□ N/A
BY PERMIT		01 1 0 11 211 3211 1	10 217,951711271511240				
	ES AND SOLIDS ADEQUAT	FLY DISPOSED			∀es	Пио	□ N/A
	EATMENT UNITS IN SERVI	n IV/10			⊠ Yes	No	□ N/A
	LTING ENGINEER RETAINS		OR CONSULTATION ON		Yes	No	□ N/A
	N AND MAINTENANCE PR		on consolir mon on				
	TED OPERATING STAFF PE				⊠ Yes	Пио	□ N/A
	ISHED PROCEDURES AVA		NG NEW OPERATORS		Yes	No	□ N/A
	AINTAINED ON SPARE PA				Yes	No	□ N/A
5.00	TIONS, AND PARTS AND E			IIN	Z 103		
	CTIONS FILES KEPT FOR O			FM	⊠ Yes	Пио	□ N/A
	EQUIPMENT	FERATION AND WA	INTERACTOR LACTITI		Z 163		
	TION AND MAINTENANCE	ΜΑΝΙΙΔΙ ΜΑΙΝΤΑΙ	INFD		∑ Yes	Пио	□ N/A
	AN AVAILABLE	. WANDAL WANTA	INCO		Yes	No	□ N/A
	ATORY AGENCY NOTIFIED	OF BY-DASSING /	Tates 1		Yes	No	⊠ N/A
	PASSING SINCE LAST INS		Jaces 1		Yes	No	□ N/A
	DRAULIC AND/OR ORGA		DEDIENCED		Yes	No	□ N/A
	- COMPLIANCE SCHEDU		FERICINCED	K525 0	TE3		
	E IS MEETING COMPLIAN			Server Const.	⊠ Yes	ΠNo	∏ N/A
(a) THE CONSTRUC (b) PRO (c) COI (d) DES (e) COI (f) CON (g) CON (h) STA	PROPRIATE PHASE(S): PERMITTEE HAS OBTAIN TION OPER ARRANGEMENT HA NTRACTS FOR ENGINEERI GON PLANS AND SPECIFIC NSTRUCTION HAS COMMI ISTRUCTION HAS BEEN CORT-UP HAS COMMENCED PERMITTEE HAS REQUES	S BEEN MADE FOR I NG SERVICES HAVE ATIONS HAVE BEEN ENCED JIPMENT ACQUISITI OMPLETED	FINANCING (mortgage of BEEN EXECUTED I COMPLETED ON IS ON SCHEDULE				O BEGIN
	- SELF-MONITORING PR			Julia 2244	经保险 新疆		
	OW MEASUREMENT			用数据数据		以 1000000000000000000000000000000000000	
	FLOW MEASUREMENT	MEETS THE REQUIRE	EMENTS AND INTENT O	FTHE	⊠ Yes	No	□ N/A
PERMIT							
DETAILS:							
	RY MEASURING DEVICE PI	ROPERLY INSTALLED)			No	□ N/A
TYPE OF D							-
WEIR	PARSHALL FLUME	MAGMETER	VENTURI METER	⊠ oth	IER (Specif	fy: In-line	
						on based or	rainfall
				data an	d runoff c	oeffecients	
(b) CALIBR	ATION FREQUENCY ADEQ	UATE. (Date of last	calibration 06/16/16)		⊠ Yes	No	□ N/A
	RY FLOW MEASURING DEV				Yes	No	□ N/A
	DARY INSTRUMENTS (total				Yes	☐ No	⊠ N/A
AND MAIN		• • • • • • • • • • • • • • • • • • •					
	MEASUREMENT EQUIPME	NT ADEQUATE TO I	HANDLE EXPECTED RAN	GES	Yes	☐ No	□ N/A
OF FLOW RATES							

PART 2 - SAMPLING	PERMIT N	RMIT NO. DC0000094			
PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT	Yes	☐ No	□ N/A		
DETAILS:					
(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES		□ No	□ N/A		
(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT	Yes	□ No	□ N/A		
(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT	Yes²	□ No	□ N/A		
IF NO. GRAB MANUAL COMPOSITE AUTOMATIC COMPOSITE FF	REQUENCY				
(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE		☐ No	□ N/A		
(i) SAMPLES REFRIGERATED DURING COMPOSITING	⊠ Yes³	☐ No	□ N/A		
(ii) PROPER PRESERVATION TECHNIQUES USED	Yes	☐ No	□ N/A		
(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT	Yes	☐ No	⊠ N/A		
(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH	Yes	□ No	□ N/A		
40CFR136.3 (e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT	Yes	⊠ No	□ N/A		
(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT	Yes	☐ No	⊠ N/A		
PART 3 - LABORATORY					
PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT	Yes	□ No	⊠ N/A		
DETAILS:					
(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3)	Yes	☐ No	□ N/A		
(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED	Yes	□ No	⊠ N/A		
(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED	Yes	☐ No	⊠ N/A		
(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT	⊠ Yes	□ No	□ N/A		
(e) QUALITY CONTROL PROCEDURES USED	⊠ Yes	No	□ N/A		
(f) DUPLICATE SAMPLES ARE ANALYZED 10 % OF TIME	⊠ Yes	No	□ N/A		
(g) SPIKED SAMPLES ARE USED 10 % OF TIME	⊠ Yes	No	□ N/A		
(h) COMMERCIAL LABORATORY USED.	⊠ Yes	No	□ N/A		
(i) COMMERCIAL LABORATORY STATE CERTIFIED	⊠ Yes	☐ No	□ N/A		
LAB NAME: Microbac Laboratories, Inc. LAB ADDRESS: 210 Van Deman Street, Baltimore Maryland, 21224 Tel.: 410.633.1800					
Comments: 2. The sampling location for outfall 001 is now a composite sample of three locations III. 3. During inspection the sample refrigerator did not contain a temperature gauge. The temperature gauge in the sample refrigerator after the inspection.					

None None None Yes ⁶ None None Light Brown ⁶ None None Light Brown ⁶ None None None None None None None None							MIT NO. DC000	0094
None None None Yes ⁵ None None Light Brown ⁶ None None None Yes ⁶ None None Light Brown ⁶ None None None Yes ⁶ None None Light None None Light None None None Servations None None Servation None None None Servation None None None Servation None None None Servation None None None Servation None None Servation None None None None None Servation None None Servation None None None Servation None Servation None None Servation None Servation None None Servation None None Servation None Servation None Servation None Servation None Servation None None Servation None None Servation None None Servation None Servation None Servation None None Servation None Servation None None Servation None None None Servation None None None None None None None No	SECTION L - EFF	LUENT/RECEIV	VING WATER	OBSERVATION				9 676
None None None Yes None None Light None Brown None Light None Brown None None None None None None None Non	OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM		COLOR	OTHER
None None None Yes None None Light Brown None Brown None Light Brown None Bro	003	None	None	Yes ⁶	None	None		None
Brown ⁶ 201 ⁵ N/A	013 ⁵	N/A	N/A		N/A	N/A		N/A
202 (retired) 203 (retired) 203 (retired) 203 (retired) 205 (Omments: 205 Outfalls 003 and 201 are interior monitoring points and discharge to Outfall 013. 206 Turbidity seemed consistent with the general river conditions, there were several other outfalls at this location. The PEPCO outfalls were not discharging and did not appear to be the source of conditions. (Sections M and N: Complete as appropriate for sampling inspections) SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached GRAB SAMPLES OBTAINED COMPOSITE OBTAINED FLOW PROPORTIONED SAMPLE AUTOMATIC SAMPLER USED SAMPLE SPLIT WITH PERMITTEE CHAIN OF CUSTODY EMPLOYED SAMPLE SPLIT WITH PERMITTEE CHAIN OF CUSTODY EMPLOYED SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE COMPOSITING FREQUENCY FRESERVATION SAMPLE REFRIGERATED DURING COMPOSITING: YES NO NA SAMPLE REFRIGERATED DURING COMPOSITING: YES NO NA SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE: YES NO NA	101	None	None	Yes ⁶	None	None		None
Comments: 5. Outfalls 003 and 201 are interior monitoring points and discharge to Outfall 013. 6. Turbidity seemed consistent with the general river conditions, there were several other outfalls at this location. The PEPCO outfalls were not discharging and did not appear to be the source of conditions. (Sections M and N: Complete as appropriate for sampling inspections) SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached	2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Comments: 5. Outfalls 003 and 201 are interior monitoring points and discharge to Outfall 013. 6. Turbidity seemed consistent with the general river conditions, there were several other outfalls at this location. The PEPCO outfalls were not discharging and did not appear to be the source of conditions. (Sections M and N: Complete as appropriate for sampling inspections) SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached	202 (retired)							
5. Outfalls 003 and 201 are interior monitoring points and discharge to Outfall 013. 6. Turbidity seemed consistent with the general river conditions, there were several other outfalls at this location. The PEPCO outfalls were not discharging and did not appear to be the source of conditions. (Sections M and N: Complete as appropriate for sampling inspections) SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached	203 (retired)			3				
	GRAB SAMI COMPOSITI FLOW PROI AUTOMATI SAMPLE SP CHAIN OF C SAMPLE OE COMPOSITING PRESERVATION SAMPLE REFRIG	PLES OBTAINED E OBTAINED PORTIONED SA C SAMPLER US LIT WITH PERM CUSTODY EMPI BTAINED FROM FREQUENCY GERATED DURI	MPLE SED MITTEE LOYED I FACILITY'S S	AMPLING DEVIO	CE : ES □ NO ☑ I	N/A		
SECTION N - ANALYTICAL RESULTS (Attach report if necessary)	SAMPLE REPRE	SENTATIVE OF	VOLUME AN	D NATURE OF D	ISCHARGE: TE	2 NO N		
	SECTION N - AN	NALYTICAL RES	ULTS (Attach	report if necess	sary)	原語學學		

Inspection Photo Log

Water/NPDES Compliance Evaluation Inspection Potomac Electric Power Company (PEPCO), Inc. Benning Generating Station 3400 Benning Road, NE Washington, DC 20019

NPDES No. DC0000094

Inspection Date:

September 16, 2016

DDOE Inspectors:

Robert Burnett Environmental Protection Specialist Isaac Kelley, Environmental Protection Specialist

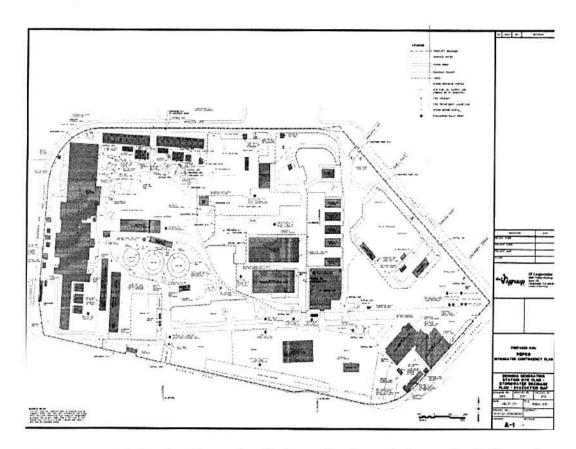


Figure 1: PEPCO Benning Generating Station - site plan and stormwater drainage plan

Pepco Benning Service Center Storm Water Pollution Prevention Plan Date: July 1995 Revised: September 2015

STORM WATER POLLUTION PREVENTION PLAN

Reviewe		Date:
	Manager, Environmental Compliance & Performance Assessment Shirley H. Harmon	
Approve	d by:	Date:
	Vice President Operations & Engineering - Site Compliance Officer George P. Nelson	
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Photo 1. SWPPP Revised 2015

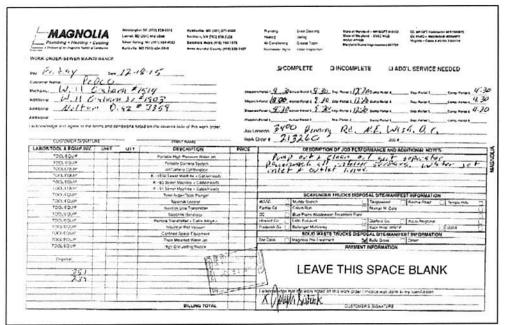


Photo 2. Magnolia Cleaning/Disposal Manifest for the Outfall 003 OWS



Photo 3. pH and Temperature Records

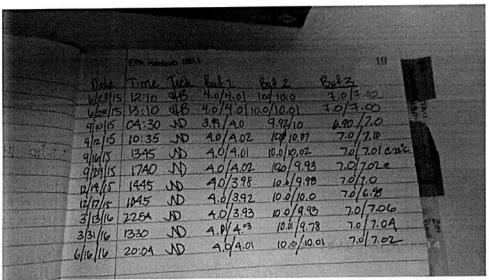


Photo 4. pH Calibration Log

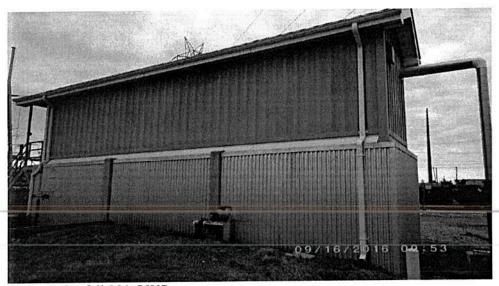


Photo 5. Outfall 201 OWS

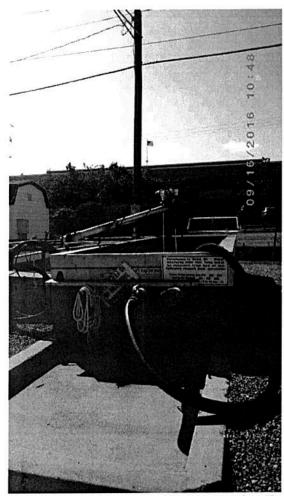


Photo 6. Outfall 003 OWS Sedimentation Tank

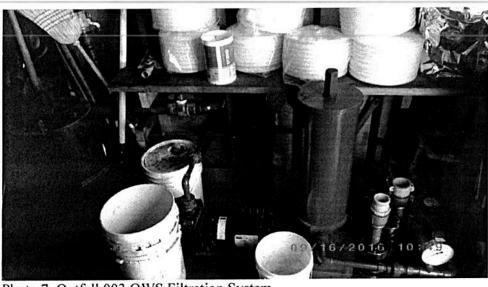


Photo 7. Outfall 003 OWS Filtration System

Water Compliance Inspection Report Potomac Electric Power Company (PEPCO), Inc. Benning Generating Station NPDES No. DC0000094



Photo 8. Inlet Protection BMPs



Photo 9. Inlet Protection BMPs

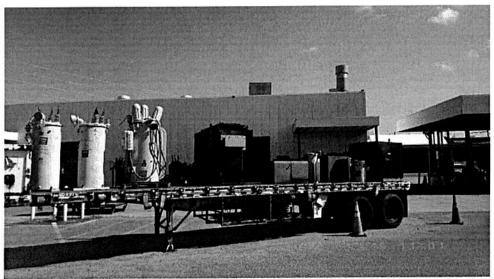


Photo 10. Transformers prepared for removal offsite, note there is no evidence of leakage or staining



Photo 11. PCB/Oil tools and materials receiving area, note the concrete containment berm and onsite staff for handling and receiving wastes



Photo 12. Outfall 013 sampling location



Photo 13. Outfall 201sampling location

Water Compliance Inspection Report Potomac Electric Power Company (PEPCO), Inc. Benning Generating Station NPDES No. DC0000094



Photo 14. Outfall 101 sampling location (1 of 3)

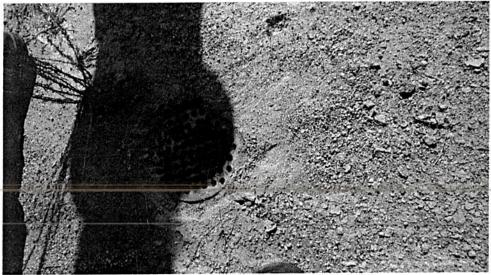


Photo 15. Outfall 101 sampling location (2 of 3)



Photo 16. Outfall 101 sampling location (3 of 3)



Photo 17. pH calibration solutions showing expiration dates



Photo 18. Water sample holding fridge, note the lack of temperature gauge

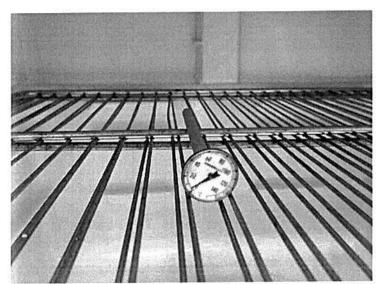


Photo 19. Photograph of temperature gauge in sample holding fridge provided by PEPCO following the inspection



Photo 20. Outfall 013 discharge location; the water is cloudy but there was no active discharge, there are several discharge pipes in this location

Water/NPDES Compliance Evaluation Inspection

Potomac Electric Power Company, Inc. Benning Road Generating Station 3400 Benning Road, NE Washington, DC 20019

NPDES Permit No. DC0000094

September 16, 2016

DOEE Representatives:

Robert Burnett Environmental Protection Specialist Isaac Kelley Environmental Protection Specialist

PEPCO Representatives:

Fariba Mahvi, Lead Environmental Engineer Mike Williams, Power Plant Asset Manager Larry J. Freeman, Site Manager

1. Introduction

On September 16, 2016, inspectors from the Water Quality Division (WQD) of the Department of Energy and Environment (DOEE) conducted a National Pollutant Discharge Elimination System (NPDES) Compliance Evaluation Inspection (CEI) at the Potomac Electric Power Company, Inc. (PEPCO), Benning Road Generating Station (the facility) was inspected to determine the accuracy and reliability of the permittee's self-monitoring program/data and compliance with their NPDES permit. NPDES program and permits derive authority from the Clean Water Act (CWA).

DOEE Inspectors Robert Burnett and Isaac Kelly reviewed records, interviewed site representatives, conducted an inspection tour of the facility, and completed EPA Form 3560-3 Water Compliance Inspection Report. The facility was represented Fariba Mahvi, Lead Environmental Engineer; Mike Williams, Power Plant Asset Manager; and Larry J. Freeman, Site Manager. The weather at the time of inspection was overcast with a temperature of approximately 75° F.

2. Facility Description

2.1 History and Current Status

The PEPCO Benning Road Generating Station (the facility) is located on approximately 77 acres of land in northeast DC. The facility consists of the footprint of a former power generation station, a 230 kV switchyard, a 69 kV switchyard, fleet services, office and security services, transmission and distribution shops, transformer repair and testing shops, storage buildings, several parking areas, a hazardous waste/PCB handling storage facility, hazardous waste accumulation trailer, asbestos trailer, subsidiary and contractor facilities, and various outdoor storage areas (Figure 1).

Prior to closure and decommissioning activities, the generating station was comprised of two fuel oil based steam generators and two fuel oil based package boilers for auxiliary and building services. The generating station used No. 2 fuel oil for start-up, and then switched to No. 4 fuel oil for sustained operation. Approximately 4.2 million gallons of fuel was stored on-site. When running at full capacity the plant used 600 gallons of No. 4 fuel oil per minute. The facility maintains a Spill Prevention, Control, and Countermeasure (SPCC) plan because of the quantities of chemicals and oil stored at the site.

The plant personnel stated that all facility controlled river water inlets have been plugged and the plant will discontinue the use of the sanitary sewer system. The main river water intake structure, which is regulated by the United States Army Corps of Engineers, will be abandoned in place.

On June 1 2012, power generating operations at PEPCO plant ceased and plant decommissioning commenced based on the facility's decommissioning plan. Decommissioning activities were completed in 2015. Facility representatives stated that closure was done in accordance with all environmental regulatory requirements established by the District of Columbia and federal agencies.

3. Records and Reports

The facility's Stormwater Pollution Prevention Plan was revised in September 2015 (SWPPP) (Photo 1) and the SPCC; monthly and weekly stormwater inspection reports; OWS maintenance reports (Photo 2), pH/temperature measurement logbooks (Photo 3); pH calibration logs (Photo 4); and Total Maximum Daily Load (TMDL) reduction reports were all reviewed as part of the inspection. These reports were found acceptable.

DMRs from April 2015 to July 2016 were reviewed along with all the supporting lab analysis and flow data used to generate the reports. The DMR and supporting data appeared to be adequate. A cursory review for completeness and accuracy identified no discrepancies. For the period reviewed, 8 permit excursions were noted (Table 1).

Table 1, 2016 Inspection Discharge Exceedances

Outfall	Exceedance Date	COC	Sample Value	Standard
013	April – June 2015	Cu	23	5.24
	April – June 2015	Fe	0.72	0.69
	April – June 2015	Zn	100	73.11
	December 2015	Cu	9.4	5.24
	January – March 2016	Cu	6.7	5.24
	January - March 2016	Zn	131	73.11
	April – June 2016	Cu	8.8	5.24
201	December 2015	TSS	107	30

In addition to the excursions detailed above, concentrations of metals (specifically Zn and Cu) measured in the effluent samples collected from Outfall 101 (Manhole K) as part of the permit monitoring schedule, are frequently above effluent limitations for Outfall 013 discharges.

4. Permit Verification

PEPCO's NPDES Permit (DC0000094) was issued on June 19, 2009 and expired on June 18, 2014 and has been administratively continued. The permit authorizes discharge of both process water (cooling water blow down and cooling tower basin wash water) and stormwater runoff. The permit has monitoring and effluent limit requirements at its outfalls or monitoring points. All known discharges from the facility are permitted. Process water associated with the power plant is no longer produced; however, stormwater and process water from oil/water separators is still discharged.

In order to comply with District of Columbia and federal government stormwater regulations the current NPDES Permit and associated compliance monitoring programs will be continued and maintained until a new permit is issued, likely following completion of site restoration.

5. Operation and Maintenance

5.1 Remaining Onsite Operations

Sources of discharge remaining on the facility include two oil water separator (OWS) systems, stormwater runoff throughout the site, and the PCB/Oil storage/disposal area. The facility has

housekeeping procedures and best management practices (BMPs) in place to prevent or minimize the release of pollutants to the environment. These BMPs include: adequate dikes and secondary containment, spill containment and clean-up kits, oil absorbent booms and filter cloth at inlets and drains, Low Impact Developments (LIDs), monthly stormwater inspections, and a metal removal and management program.

5.2. Oil Water Separators

The facility has two oil-water separator treatment systems. The facility representatives stated that the two on-site OWSs will not be removed as part of the plant closure procedures.

- (i) The OWS/settling system at Outfall 201 (**Photo 5**) was designed to remove oil and grease from utility wastewater and a No. 2 fuel oil loading area. Monitoring point 201 is the discharge point from this OWS. In 2011, the facility installed a new OWS system, which is currently operational and in-service and plans to maintain it for the treatment of stormwater.
- (ii) OWS/settling/filtration system at Outfall 003 (**Photo 6**) is a treatment system designed to remove oil, grease, and solids from water extracted from utility manholes throughout PEPCO's service area. The treatment system operates in batch mode and consists of an OWS, storage, and settling tanks followed by a two staged filter system of cloth and charcoal media (**Photo 7**). The treated effluent is held in an underground tank from where samples are collected and sent to an off-site laboratory. Once testing confirms no contaminants are present above effluent limits, the batch is pumped through Outfall 003 to the Outfall 013 pipeline. If necessary, pH is adjusted before discharging.

5.3 Stormwater Runoff

Stormwater runoff from the facility is conveyed through a drainage system and is discharged to the Anacostia River and the Districts Municipal Separate Stormwater System (MS4) at various outfalls. Most of the stormwater runoff from the PEPCO's service center area is conveyed through a 36-inch and 54-inch storm drainpipe to the Anacostia River via Outfall 013. Stormwater catch basins within the demolition area have been covered with filter cloth, oil absorbent booms, and rip-rap (Photos 8 and 9) to remove excess debris generated during demolition from entering the basins.

Facility representatives stated that monthly stormwater inspections are conducted by staff for the site and inlet BMPs are inspected weekly. The forms are signed by their respective inspectors, then reviewed and initialed by their managers.

5.4 PCB/Oil Storage/Disposal Area

The facility continues to receive old transformers and test oil for PCBs as part of remediation efforts. All parts and tools potentially containing or exposed to oils are collected in drums and set inside a receiving area which is surrounded by a concrete berm (Photo 10). Oil Samples are placed in a receiving box with chain of custody forms. Old transformer oil is tested, pumped to holding tanks and then later removed and disposed of by a contractor based on its concentrations. Any wash water generated while cleaning these materials is collected in holding tanks then later pumped and disposed of. The receiving and recycling/disposing transformer operations area was clear of any visible oil spills and was monitored by staff during the inspection (Photo 11).

Transformers were on pallets and properly contained in case of any spills. The operations appear to be properly handling and disposing of oils and protecting storm drains from any potential spills.

6. Compliance Schedules

6.1 Part VII. Special Conditions H. Manhole K.

The facility was required to submit a plan (with an implementation schedule) to retrofit Manhole K into a reliable monitoring point for stormwater discharging from Outfall 101. The goal was to ensure that the manhole is not affected by high tides. According to the facility representatives, Manhole K sampling now consists of compositing grab samples from three upstream storm drains on the west side of the power plant that discharge to Manhole K. This sampling procedure has been implemented and is a part of PEPCO's routine self-monitoring program.

6.2 Part VII. Special Conditions Section A. Conditions Applicable to PCB Sampling and Limits

This condition requires that, upon detection of PCBs analyzed by method 1668B at or above the detectable level, the facility must submit to EPA and DDOE a plan to determine the source or sources of the PCB discharge and a pollutant minimization plan. In compliance with these requirements PEPCO contracted AMEC to conduct the appropriate studies and to develop the plan to meet the permit criteria. The 2010 tracking report was provided electronically following the inspection. It sets out a plan for tracking and minimizing PCBs onsite. PCB samples continue to be taken quarterly at Outfalls 013 and 101, and per discharge at Outfall 003.

6.3 Part VII Special Condition Section D. Iron Source Determination

This condition requires the facility to conduct a study to determine the source or sources of iron in its discharge and within three years of the permit issuance develop and install BMPs at appropriate locations to reduce the release of total iron to 1.0 mg/L.

In 2011, AMEC submitted to PEPCO a PCB and Iron Source Tracking and Pollutant Minimization Plan. This plan is included in PEPCO's SWPPP. In accordance with AMEC's findings and recommendations, PEPCO completed the implementation of a total suspended solids removal system by installing a solids and metal reducing filtering system in each of their on-site stormwater drains. In addition, the facility has implemented a metal removal and management program that incorporates regular monthly inspections to remove or cover all exposed metal on the yard.

While the facility continues to attempt to identify and limit iron sources, quarterly sampling frequently finds iron totals in excess of 1.0 mg/L.

6.4 Part VII. Special Condition Section E. TMDL Implementation Plan

This condition requires the facility to submit a plan to EPA and DDOE describing all previous, on-going, and future efforts by the permittee to meet pollutant reduction loads required by the Anacostia River TMDL. In compliance with this permit condition, PEPCO contracted AMEC to complete the TMDL Implementation Plan. In 2011 AMEC submitted to PEPCO a TMDL Implementation Plan. This plan is also included in PEPCO's SWPPP and incorporates the PCB and Iron source Tracking and Pollutant Minimization Plan. AMEC's implementation plan

employed a three Phase approach to reduce the concentration of contaminants in their discharge to within limits set forth in the TMDL. Phase I and Phase II have been completed and consisted of the installation of the stormwater inlet filters and implementation of a metal removal and management program, respectively. Phase III requires the implementation of LIDs. PEPCO has installed some of the planned LIDs, but will not complete the installation of all LIDs until the completion of planned plant closure.

The installation has seen some improvement in lowering the concentration of metals and solids discharged, periodic exceedances continue to occur, particularly involving zinc, copper, lead, and iron.

7. Self-Monitoring Program

The facility is conducting its self-monitoring program in accordance with the Permit Part II, Section C.3, which requires that monitoring be conducted according to procedures approved under 40 CFR 136.

7.1 Sampling

Effluent samples for Outfall 013 are collected quarterly at a manhole (Photo 12) roughly five hundred feet upgradient from the end of the discharge pipe for TSS, oil & grease, PCBs, and metals (Cu/Pb/Zn/Cd/Fe). Samples for Outfalls 003 and 201 (Photo 13) are collected at the end of their respective treatment system's discharge pipe before entering Outfall 013 whenever discharge occurs for TSS, oil and grease, and PCBs. Outfall 003 is sampled from the underground effluent holding tank prior to discharge and water is discharged only after results indicate the water is in compliance with permit requirements. Samples are collected and refrigerated before shipment to an offsite lab.

Before the plant closure and decommissioning, samples for Outfalls 202 and 203 were collected from the cooling tower sumps. This sampling is no longer required as the structures have been demolished.

In accordance with a study done under the permit, the facility moved the representative sampling location for Outfall 101. The investigation found Manhole K, its original monitoring location, has often been impacted by high tides from the Anacostia River. Manhole K sampling now consists of compositing grab samples from four upstream storm drains (Photos 14, 15, and 16) on the west side of the power plant that discharge to Manhole K. Samples for Outfall 101 are collected using stainless steel bailers by an independent contractor during storm events and sent to a lab.

Samples are field analyzed for pH and temperature. pH and temperature samples are collected, analyzed, and documented in log books. Calibration log books indicated a 3-point procedure is used to calibrate pH meters for each of the monthly samples, buffer solutions (4, 7, and 10) used in their calibrations were all current (unexpired) at the time of this inspection (**Photo 17**).

Samples are kept in a refrigerator until they are picked up by the lab or its currier. PEPCO staff stated NPDES permit samples are picked up within a few days by courier and transferred to Microbac Laboratories, Inc. in Baltimore, Maryland. The samples are stored in the Chemical

Building Lab in a refrigerator until pickup. During the 2016 inspection there was no temperature gauge in the refrigerator (**Photo 18**), however, PEPCO staff stated it had only been temporarily moved and provided a photo later that day of the thermometer returned to the refrigerator (**Photo 19**).

7.2 Flow Measurement

The flow measuring device (in-line totalizer water-type flow meter) at Outfall 003 appeared to be working properly at the time of the inspection and according to facility representatives, does not need calibration. Outfall 201 flow is estimated by metering running times (hours) of the OWS two influent pumps and applying their pump ratings. Outfall 003 discharge is measured by an inline (totalizer) flow meter in the effluent discharge line and

The overall flow from Outfall 013 is estimated from the summation of the wastewater flow at the outfalls and stormwater runoff calculated using rainfall data and runoff coefficients for the various sections of the facility. This approach appears to be consistent with the permit.

7.3 Laboratory

The facility previously maintained two in-house (onsite) laboratories. The first was located at the power generation station. This laboratory is no longer in use, but was previously used to monitor effluent samples for parameters such as residual chlorine and pH. The second is the lab located at the Chemical Building.

The facility contracts analytical services to Microbac which analyzes the facility's samples for TSS, oil & grease, metals, and PCBs. Microbac lab conducts quality control duplicate sample analysis and internal spike analysis on every tenth sample received. The offsite laboratories were not included as part of the subject inspection. Microbac participates in the EPA's DMR QA Studies.

8. Effluent and Receiving Waters

The facility's permitted discharges consist of the following: non-contact cooling water, cooling tower blow down, treated wastewater effluent (oil/water separator, settling, and filtration), cooling tower basin wash water, cooling water from boiler feed pumps, demineralization, regeneration wastes, groundwater infiltration sump water, fireside washing, miscellaneous cleaning waste, water for hydrostatic tank testing, and stormwater. A majority of these flows were discharged to the Anacostia River (through wetlands) via Outfall 013. Due to plant closure and decommissioning, there is no longer any process water being produced.

8.1 Outfall 013

Outfall 013 is the facility's largest outfall. It is a 54" pipe that discharges a combined stream of both process wastewater and stormwater. The permit regulates the various discharges originating from two oil-water separators, non-contact cooling water, cooling tower blow down, basin cleaning wastes from two cooling towers, and stormwater from several locations within the facility. Outfall 013 collects discharge from Outfalls 003 and 201. Prior to plant closure it also used to collect discharge from Outfalls 202 and 203.

The outfall discharges into a wetland, a few hundred feet from the Anacostia River. Outfall 013 was not observed discharging water during the CEI. The receiving water at the discharge point of 013 was brownish in color and turbid or cloudy in appearance (**Photo 20**). It was not apparent where the turbidity originated from but it did not seem to be directly related to the outfall. There are other outfall pipes adjacent to Outfall 013 which discharge stormwater from nearby facilities.

Outfall 003

Outfall 003 is an internal outfall that discharges batch flow (pumped) from the treated water holding tank to the manhole of the 48" section of the main pipeline, which ultimately becomes the 54" main pipeline discharging as Outfall 013. The outfall was not discharging at the time of inspection. The treatment system (oil-water separator, settling tank, and filters) was operable but not in operation at the time of inspection.

Outfall 201

Outfall 201 is an internal monitoring and discharge point for the facility's industrial wastewater and some stormwater. A duplex pump system (each rated at 500 gpm) intermittently pumps the stormwater and wastewater from the various power plant related processes to the new oil/water separator that has been in operation since March 31, 2011. According to facility representatives, the system has a surge valve which would bypass treatment and flow directly to Outfall 201 if ever activated. They pointed out that the valve is kept in a locked position. Outfall 201 then discharges into a manhole mounted on a 48" section of the Outfall 013 pipeline. There was no discharge from Outfall 201 observed during the inspection.

Outfalls 202 and 203

Both Outfalls 202 and 203 formerly received blow down discharges from cooling towers for units 15 and 16, respectively, which were then conveyed to Outfall 201. Outfalls 202 and 203 discharged only when the facility was discarding the cooling water because of high conductivity. Due to plant closure the discharges to Outfalls 202 and 203 have been discontinued and both outfalls have been closed.

8.2 Outfall 101

Outfall 101 discharges stormwater to the Anacostia River, and is located near the facility's river water intake point. It conveys runoff from the transformer area on the west side of the power plant building. Since there was no stormwater runoff to the source inlets at this time, there was no Outfall 101 discharge to the river except for possible groundwater seepage into the storm drain system or tidal water.

9. Past and Current Inspection Findings

9.1 2012 Inspection Findings

SEV E0013 – Improper/Incorrect Reporting
 Monthly stormwater inspection reports were omitted for the months of April, August and
 December of 2011 and February of 2012.

9.2 2013 Inspection Findings

- SEV A0012 Numeric Effluent Violation
 A total of 20 effluent limit excursions were recorded for TSS (1), Copper (6), Lead (1),
 Iron (4), Zinc (6), O/G (1), and pH (1). Proper notification was provided to EPA for each
 of the excursions.
- SEV A0023 Industrial Spill
 A large quantity of oil was spilled in the basement of the facility on June 12, 2013. This spill bypassed the OWS and was discharged to the Anacostia River.
- SEV A011 Unapproved Bypass
 The June 2012, 2013 oil spill bypassed treatment and was discharged to the Anacostia River.

9.3 2015 Inspection Findings

- SEV A0012 Numeric Effluent Violation
 A total of 9 effluent limit excursions were recorded for Copper (4), Iron (1), Zinc (2), and pH (2) from November 2013 to April 2015
- Due to repeated metal excursions EPA sent Pepco a Section 308 information request letter on June 5, 2013. The letter and subsequent meetings between Pepco and EPA resulted in drafting of a compliance plan by Pepco for the facility. The plan titled, Benning Service Center Phase 3 TMDL Implementation Plan for Compliance with the NPDES Permit was approved by EPA in April 2015. The Plan outlines five actions to be completed with the goal of achieving compliance by December 2015. The objectives outlined include the following:
 - Identify and address condition, activities, or operations at the Benning Service Center (BSC) that may be significant contributors to metals in stormwater;
 - o Evaluate and enhance existing stormwater inlet controls;
 - o Investigate potential groundwater infiltration to the storm drain system;
 - Conduct targeted sampling of storm drain inlets to identify locations where metals loading is greatest and where additional controls can be employed; and
 - o Update the BSC Stormwater Pollution Prevention Plan
- The facility has begun implementing the plan and has completed the installation of enhanced metal filtering stormwater inlet controls.

9.4 2016 Inspection Findings

9.4.1 A0012 Effluent Violations - Numeric Effluent Violation

Part I. Effluent Limitations and Monitoring Requirements

Maximum Average Monthly Concentration Limits for Copper (5.24 ug/l), Lead (56.60 ug/l), Zinc (73.11 ug/l), Cadmium (2.08 ug/l), and Iron (0.69 ug/l) at Outfall 013 and TSS (30 ug/l) at Outfall 201.

Since the last inspection period (April 2015 to July 2016) the facility had eight effluent limit exceedances. Outfall 013 had exceedances for Copper (4), Zinc (2), and Iron (1) and Outfall

201 had an exceedance for TSS (1). Details and values can be seen in Table 1.

9.4.2 E0017 Reporting Violations - Failure to Notify

Part IV. Reporting Requirements

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Part VI. 1 [Planned Changes], 4 [Monitoring Reports], 5 [Compliance Reports], and 6 [24 hour reporting] at the time monitoring reports are submitted. The reports shall contain the information listed in Part VI.6.

The facility failed to notify EPA in the DMR reports of effluent violations. On April 5, 2015 report of quarterly sampling results the Zinc exceedance was noted and reported (by telephone and via mail), however, the Copper exceedance was not.

10. Conclusions

The facility no longer has industrial process water; however, stormwater runoff continues to have high metals content. The facility's *Phase 3 TMDL Implementation Plan for Compliance with the NPDES Permit* has been implemented and had some success at Outfall 013; Iron levels have been below 1.0 mg/l for the last two quarters at both outfalls. However, concentrations of lead, zinc, copper, and nickel are flowing from Outfall 101 regularly exceed Outfall 013 requirements and have shown little signs of improvement since the last inspection. In addition, sampling results show the facility will have significant difficulty reaching the Stormwater Discharge Concentration Goals for Metals outlined in Part VII. Special Conditions Section E. TMDL Implementation Plan.

Attachments:

- A. Water Compliance Inspection Report EPA Form 3560-3.
- B. Photograph log